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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/773,681	02/06/2004	Pradeep Bahl	M1103.70234US00.	7805
45840 7590 02/13/2008 WOLF GREENFIELD (Microsoft Corporation) C/O WOLF, GREENFIELD & SACKS, P.C. 600 ATLANTIC AVENUE BOSTON, MA 02210-2206			EXAMINER HUSSAIN, TAUQIR	
			ART UNIT 2152	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.		Applicant(s)	
	10/773,681		BAHL ET AL.	
	Examiner		Art Unit	
	Tauqir Hussain		2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>02/06/04, 07/17/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1-44 are pending in this application.

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, in claims 1 and 22 “determining a network DNA for the computer network”, “network DNA taxonomically classifying”, “at least one derived network DNA specification referencing at least one of said at least one raw Network DNA Component” and “the network species classification including enterprise network, hoe network and public place network” and “the network species classifications determined as a function of at least, network security, network management and network addressing” must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Objection to Specification

2. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: **“DNA, DNA taxonomically classifying, DNA component and linear transformation”** further,

Claim 30 recite, “evaluating an expression specified by the network DNA policy condition results in an **evaluation error**”,

Claim 44 recite, "at least one network DNA component is determined probabilistically" or "the confidence level of said at least one network DNA component determined probabilistically corresponds to a margin of error in the determination", for which Examiner found no support in specification.

3. The disclosure is objected to under 37 CFR 1.71, as being so incomprehensible as to preclude a reasonable search of the prior art by the examiner. For example, the following items are not understood:

DNA taxonomically classifying, DNA component, network species, linear transformation.

Applicant is required to submit an amendment which clarifies the disclosure so that the examiner may make a proper comparison of the invention with the prior art.

Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

4. A preliminary examination of this application reveals that it includes terminology which is so different from that which is generally accepted in the art to which this invention pertains that a proper search of the prior art cannot be made. For example: DNA, DNA taxonomically classifying, raw network, derived network, DNA component, network species, linear transformation.

Applicant is required to provide a clarification of these matters or correlation with art-accepted terminology so that a proper comparison with the prior art can be made.

Applicant should be careful not to introduce any new matter into the disclosure (i.e., matter which is not supported by the disclosure as originally filed).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claims 1-44 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim 1 contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The phrases as, "DNA component, DNA taxonomically classifying, linear transformation". DNA "deoxyribonucleic acid" is generally related to human cell structure which carries generic characteristics in all life forms; therefore it is not clearly supported in specification for one skilled in the art, that how a person can derive raw computer related components from the living characteristic of human body cells.

Interpretations:

7. Due to inconclusive evidence and support of the terminology in the specification, examiner will interpret the mentioned terms as follows:

Raw network DNA component as "raw network component"

Derived network DNA component as "derived network component"

Network DNA as "network property"

Network DNA component as "network module" which comprises of software

Network DNA taxonomically classifying as "Network classification"

Claim Rejections - 35 USC § 101

8. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9. As to claims 1-21 and 40-44 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In the light of specification on page 6, [0024], applicant has provided that applicant intends the medium to include transmission media as such claim is drawn to a form of signal and light waves. Carrier waves or signal does not fall into one of the four categories of invention and therefore, claims 9-16 is not statutory. Signal is not a series of steps or acts and thus is not a process. Signal is not a physical article or object and such is not a machine or manufacture. Signal is not a combination of substances and therefore, not a composition of matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States

only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

10. Claim 1-2, 10, 16, 22 and 24 are rejected under 35 U.S.C. 102(e) as being anticipated by Tezuka (Pub. No.: US 2003/0074359 A1), hereinafter "Tezuka".

11. As to claim 1, Tezuka discloses, acquiring at least one raw network DNA component (Tezuka, Fig.2, step-s2, [0036], where NE collects the network information), each raw network DNA component corresponding to an attribute of a computer network (Tezuka, Fig.2, step-s2, [0036], where trunk and tributary elements are computer network attributes);

generating at least one derived network DNA component according to at least one derived network DNA component specification (Tezuka, Fig.2, step-s4, [0038], where based on required changes a new network model is created), at least one of said at least one derived network DNA component specification referencing at least one of said at least one raw network DNA component (Tezuka, Fig.2, step-s4, change network management model using relevant scenario [0038], where retrieved scenario is referencing the existing model); and

determining a network DNA for the computer network (Tezuka, Fig.2, [0032], where network construction is determining a DNA for the computer network, inherently will be an ID, domain, subnet etc), the network DNA taxonomically classifying the computer network (Tezuka, [0036, lines 3-4], where trunk and tributary are taxonomically classified network architecture), and the network DNA comprising at least one of said at least one derived network DNA component (Tezuka, [0039], where newly

created network model is updated and saved into management storage space, which is a derived network DNA from existing network).

12. As to claim 16, Tezuka discloses, performing a method comprising determining a network DNA of a computer network (Tezuka, Fig.2, Step-s2, [0036], where collecting network element information means determining Network DNA of a computer network), the network DNA comprising a network species component (Tezuka, [0036], where inherently any network will contain network species component which can merely be a network ID, domain, subnet etc).

13. As to claim 22, Tezuka discloses, at least one computer connected to at least one computer network (Tezuka, Abstract, where inherently network model is a computer network model); and

at least one network DNA store configured to store a network DNA for at least one of said at least one computer network (Tezuka, [0038], where updated network model is stored), the network DNA taxonomically classifying said at least one of said at least one computer network (Tezuka, Fig.3, [0041], where network DNA taxonomically classified as N1, N2, N3 and N4 as access network, SDH network and IP network respectively), and the network DNA comprising at least one derived network DNA component (Tezuka, Fig.2, Step-s4, [0038], where updated network model is a network derived DNA).

14. As to claims 2 and 24, Tezuka discloses, wherein said at least one derived network DNA component comprises a network species component (Tezuka, Fig.2, [0035], It is inherent that any network contains species component).

15. As to claim 10, carry similar limitation as parent claim1 and therefore, is rejected under for same rationale.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. Claims 11-12, 17, 21, 23 and 25-37 are rejected under 35 U.S.C 103 (a) as being unpatentable over Tezuka in views of Williams et al. (Pub. No.: US 2005/0257267 A1), hereinafter "Williams".

17. As to claims 11, 21 and 27, Tezuka disclose the invention substantially as in parent claim 1, 16 and 22, including, network DNA policy condition (Tezuka, Abstract, where constructing a network model means obviously there is a network policy in place). Tezuka however is silent on disclosing explicitly, "testing a policy satisfaction" or executing a policy if policy satisfied".

Williams however, discloses, testing a network DNA policy condition of a network DNA policy for satisfaction (Williams, [0098], where policy is defined and tested), the

network DNA policy condition referencing at least one of said at least one derived network DNA component (Williams, Abstract, since these policies are based on audit and collected data over the network, therefore it is obvious that policy conditions are referencing from existing DNA component); and

initiating an execution of a network DNA policy action of the network DNA policy if the network DNA policy condition of the network DNA policy is satisfied (Williams, [0098], where after testing policy is ready for deployment).

Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to combine the teachings of Tezuka with the teachings of Williams in order to provide a network policy deployment tool to test the policy before the policy implementation to resolve unseen issues.

18. As to claims 12 and 31, Tezuka and Williams disclose the invention substantially as in claim 11 above, including, wherein the method further comprises testing whether sufficient network DNA referenced by the DNA network policy condition of the network DNA policy has been acquired (Williams, [0099], where testing one of the selected policy from test menu implies testing different policy to see if acquired data is sufficient).

19. As to claim 17, Tezuka and Williams disclose the invention substantially, including, generating at least one derived network DNA component according to at least one derived network DNA component specification (Tezuka, Fig.3, [0043], where SDH network N3 accommodates network element designed for SDH transmission thus formulating a single technology domain, which is N3 domain will be used for N3 like

domain preferences) at least one of said at least one derived network DNA component specification referencing at least one acquirable attribute of the computer network (Tezuka, [0043], it is obvious that, "SDH network N3 accommodates network element designed for SDH transmission thus formulating a single technology domain" these derived network preferences have been build on existing network retrieved preferences or network DNA component).

20. As to claim 23, Tezuka and Williams disclose the invention substantially as in parent claim 22, including, wherein said at least one network DNA store comprises a current network DNA store and a network DNA history store (Tezuka, [0039], where updated network management model is saved into database).

21. As to claim 25, carry similar limitations as parent claim 22, therefore is rejected under for same rationale.

22. As to claim 26, Tezuka and Williams disclose the invention substantially as in parent claim 22, including, wherein each network DNA policy comprises a derived network DNA components dependency list that lists each derived network DNA component of the network DNA referenced by the network DNA policy (Williams, [0072, lines 1-6], where policy library-42 is a repository of pre-established policies, therefore it is obvious that any network build on these policies will be derived and dependent on these policies).

23. As to claim 28, Tezuka and Williams disclose the invention substantially as in parent claim 27, including, wherein the network DNA policy condition of the network DNA policy is satisfied if an expression specified by the network DNA policy condition evaluates to Boolean true (Williams, Fig.12A, policy violation-916, [0135], where complying with the policy is "Boolean true", which handle the violation per policy instruction).

24. As to claim 29, Tezuka and Williams disclose the invention substantially as in parent claim 27, including, wherein the network DNA policy condition of the network DNA policy is satisfied if an expression specified by the network DNA policy condition evaluates to Boolean false (Williams, Fig.12A, policy violation-916, [0135], where not complying with the policy in false, which terminates the process).

25. As to claim 30, Tezuka and Williams disclose the invention substantially as in parent claim 27, including, wherein the network DNA policy condition of the network DNA policy is satisfied if evaluating an expression specified by the network DNA policy condition results in an evaluation error (Williams, [0068], where policy evaluation is tested before deployment, which obviously is an essential step of removing any remaining errors in policy).

26. As to claims 32, Tezuka and Williams disclose the invention substantially as in parent claim 27, including, each network DNA component is associated with a confidence level (Williams, Fig.3, recommendation engine, [0078], where

recommendation engine is provide a confidence level and each policy is associated with confidence level); and

sufficient network DNA has been acquired for the network DNA policy if the confidence level of each network DNA component referenced by the network DNA policy condition of the network DNA policy is greater than zero (Williams, [0144], where mapping score is above a given threshold and where threshold can be a zero).

27. As to claim 33-34, carry similar limitation as claim 32 above and therefore, are rejected under for same rationale.

28. As to claim 35, Tezuka and Williams disclose the invention substantially as in parent claim 22, including, a network DNA generator configured to, at least generate said at least one derived network DNA component according to at least one derived network DNA component specification (Tezuka, Fig.3, [0043], where SDH network N3 accommodates network element designed for SDH transmission thus formulating a single technology domain, which is N3 domain will be used for N3 like domain preferences) at least one of said at least one derived network DNA component specification referencing at least one raw network DNA component of the network DNA associated with the computer network (Tezuka, [0043], it is obvious that, "SDH network N3 accommodates network element designed for SDH transmission thus formulating a single technology domain" these derived network preferences have been build on existing network retrieved preferences or network DNA component).

29. As to claim 36, Tezuka and Williams disclose the invention substantially as in parent claim 35, including, wherein the network DNA generator is further, at least, configured to maintain at least one derived-raw network DNA component dependency list (Tezuka, [0038], where existing network scenarios are stored in database), said at least one derived-raw network DNA component dependency list comprising (Tezuka, [0038], where scenarios are dependency list), for each derived network DNA component generated by the network DNA generator (Tezuka, [0038], where model builder is DNA generator which generates or updates new models), a list referencing each raw network DNA component referenced by each derived network DNA component specification associated with the derived network DNA component (Tezuka, [0038], obviously these derived network models are based on existing network scenarios and therefore new models history and log will be referencing back to the existing network or base network model or architectures).

30. As to claim 37, Tezuka and Williams disclose the invention substantially as in parent claim 35, including, wherein the network DNA generator is further (Tezuka, [0010], where network management model builder is network DNA generator), at least, configured to generate each derived network DNA component referenced by a derived network DNA refresh list (Tezuka, [0010], where network builder further updates/refresh the model in response to a network construction request), the derived network DNA refresh list referencing each derived network DNA component dependent upon a changed raw network DNA component (Tezuka, [0010], where any changes to these

component are stored in a database which is equivalent too log or history of data over a period of time).

31. Claims 38-39 are rejected under 35 U.S.C 103(a) as being unpatentable over Tezuka as applied to claim 22 above in view of Britt et al. (Patent No.: 6,675,209 B1), hereinafter "Britt".

32. As to claim 38, Tezuka discloses the invention substantially as in parent claim 22 above, including, "acquiring a plurality of raw network DNA component" (Tezuka, [0036], where request is send out to collect network preferences). Tezuka and Williams however are silent on disclosing explicitly, "acquirer, acquire network DNA component according to priority list specified by raw network DNA acquisition priority list" or "each raw network DNA component corresponding to an attribute of said at least one computer network".

Britt however discloses, "acquirer, acquire network DNA component according to priority list specified by raw network DNA acquisition priority list" (Britt, Claim 16) or "each raw network DNA component corresponding to an attribute of said at least one computer network" (Britt, Claim 16).

Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to combine the teachings of Tezuka with the teachings of Britt in order to provide an adaptive system module includes a network organizer that categorizes the multiple segments of the network, a network prioritizer that ranks the categorized segments amongst themselves according to a necessity to obtain data

traffic information for analysis, and a system optimizer that determines how many of the ranked segments can provide data traffic information within a set protocol data unit ("PDU") credit limit.

33. As to claim 39, Tezuka, Williams and Britt discloses the invention substantially as in parent claim 38, including, wherein the order specified by the raw network DNA acquisition priority list is in accord with an ordered set of network DNA policies that reference the plurality of raw network DNA components (Tezuka, Fig.6, Tributary-11a, [0054], where network DNA is listed sequentially which is the result of applied policies of raw network DNA).

34. Claims 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tezuka as applied to claim 16 above in view of Jacobs et al. (Patent No.: US 7257560 B2), hereinafter "Jacobs".

35. As to claims 18-19, Tezuka discloses the invention substantially as in parent claim 16, including, wherein the network DNA further comprises a network name component (Tezuka, [0006], where network comprises of single technology domain, e.g. IP, SDH or access etc and IP address is operational attribute as well), a core access component (Tezuka, Fig.3, N1 and N2 are access network), a core addressing component (Tezuka, [0041], where IP network is addressing component), a network security component (Marples, [0005], where firewall is a security component) and a

network technology component (Tezuka, [0041], where IP, SDH are network technology component).

Tezuka however is silent on disclosing explicitly, "a network cost component".

Jacobs however discloses, "a network cost component" (Jacobs, [0014], where associated cost to network utilization is disclosed.

Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to combine the teachings of Tezuka as applied to claim 16 above, with the teachings of Jacobs in order to provide a technique to track the costs associated with different service providers for service utilizations.

36. Claims 13-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tezuka and Williams as applied to parent claim 11 in view of Marples et al. (Pub. No.: US 2003/0140142 A1), hereinafter "Marples".

37. As to claims 13-15, Tezuka and Williams disclose the invention substantially as in claim 11. Tezuka and Williams however are silent on disclosing explicitly, "wherein the network DNA policy reduces performance penalties when switching between computer networks".

Marples, however discloses, "wherein the network DNA policy reduces performance penalties when switching between computer networks" (Marples, [0004], where firewall is placed between private and public network and enforcing access control policy for security concerns).

Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to combine the teachings of Tezuka and Williams as applied to parent claim 11 above with the teachings of Marples "Access control policy for security concerns" in order to provide a switching capability between private and public network on the fly without having to worry about security concerns.

38. Claims 20, 40 and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tezuka as applied to claim 1, 16 and 22 above in view of Marples.

39. As to claims 20 and 40, Tezuka discloses the invention substantially, including, a network DNA of a computer network (Tezuka, Fig.2, Step-s2, [0036], where collecting network element information means there is DNA present in computer network), the network DNA comprising a network species component capable of indicating network species classifications (Tezuka, Fig.3, [0041], where access, SDH and IP network are network species classification), the network species classifications including enterprise network, home network and public place network (Tezuka, Fig.3, [0041], where SDH, IP and access network can be enterprise, home or public network), and the network species classifications determined as a function of, at least, network security, network management and network addressing (Tezuka, Fig.3, [0041], where SDH and IP networks are based on network management and addressing and obviously there is security associated with these networks which is well known in the art as well).

Tezuka however is silent on disclosing explicitly, "the network species classification includes, enterprise, home and public network" or "network species classification determined as a function of network security".

Marples however discloses, "the network species classification includes, enterprise, home and public network" (Marples, [0005], where private home network, public network and private corporate network is disclosed), and Marples further discloses, "network species classification determined as a function of network security" (Marples, [0005], where there networks are interconnected via firewall for security reasons).

Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to combine the teachings of Tezuka as applied to claims 1, 16 and 22 above, in order to provide a methods and apparatus that allow devices separated by firewalls and NATs to communicate without reconfiguring the firewalls and NATs and without decreasing security.

40. As to claim 41, has similar limitation as parent claim 40 above and therefore rejected under for same rationale.

41. Claim 42 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tezuka and Marples as applied to claims 40 and 41 above in view of Jacobs et al. (Patent No.: US 7257560 B2), hereinafter "Jacobs".

42. As to claim 42, Tezuka and Marples disclose the invention substantially as in parent claim 40, including, wherein the network DNA further comprises a network name component (Tezuka, [0006], where network comprises of single technology domain, e.g. IP, SDH or access etc and IP address is operational attribute as well), a core access component (Tezuka, Fig.3, N1 and N2 are access network), a core addressing component (Tezuka, [0041], where IP network is addressing component), a network security component (Marples, [0005], where firewall is a security component) and a network technology component (Tezuka, [0041], where IP, SDH are network technology component).

Tezuka and Marples however are silent on disclosing explicitly, "a network cost component".

Jacobs however discloses, "a network cost component" (Jacobs, [0014], where associated cost to network utilization is disclosed.

Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to combine the teachings of Tezuka and Marples as applied to claim 40 above, with the teachings of Jacobs in order to provide a technique to track the costs associated with different service providers for service utilizations.

43. Claims 43-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tezuka and Marples as applied to claims 40 and 41 above in view of Anderson et al. (Pub. No.: US 2004/0068582 A1), hereinafter "Anderson".

44. As to claim 43, Tezuka and Marples disclose the invention substantially as in parent claim 40. Tezuka and Marples however are silent on disclosing explicitly, "wherein the network DNA further comprises a confidence level for each network DNA component".

Anderson however, discloses, "wherein the network DNA further comprises a confidence level for each network DNA component" (Anderson, Fig.28, [00196], where fuzzy and crisp logic with confidence level is disclosed).

Therefore it would have been obvious to one ordinary skilled in the art at the time the invention was made to combine the teachings of Tezuka and Marples with the teachings of Anderson in order to provide a hierarchy of network DNA with respect to network DNA confidence level which will help developing network architectural models in future.

45. As to claim 44, Tezuka, Marples and Anderson discloses the invention substantially as in parent claim 40 above, including, at least one value of at least one network DNA component is determined probabilistically (Anderson, [0196], where network address is located probabilistically); and the confidence level of said at least one network DNA component determined probabilistically corresponds to a margin of error in the determination (Anderson, Fig.28, [0196], where probability means result is based on margin of error).

46. Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tezuka as applied to claim 1 above in view of Anderson.

47. As to claim 3, Tezuka discloses the invention substantially as applied to claim 1 above, including, wherein at least one of said at least one derived network DNA component specification comprises at least one value of at least one of said at least one raw network DNA component.

Tezuka however is silent on, "a linear transformation".

Anderson however discloses, "a linear transformation" (Anderson, [0186], where network confidence level is Network DNA component is calculated based on linear combination of each of constituent confidence factor field).

Therefore it would have been obvious to one ordinary skilled in the art at the time the invention was made to combine the teachings of Tezuka with the teachings of Anderson in order to provide a hierarchy of network DNA with respect to network DNA confidence level which will help developing network architectural models in future.

48. As to claim 4, Tezuka and Anderson discloses the invention substantially as applied to claim 43 and 44 above, including, wherein said at least one derived network DNA component specification comprises a combination of said at least one raw network DNA component (Anderson, [0186], where confidence factors are combination of raw and derived network DNA).

49. Claims 5-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tezuka in view of Beadles et al. (Patent No.: US 7159125 B2), hereinafter "Beadles".

50. As to claims 5-7, Tezuka discloses the invention substantially as in parent claim 1 above. Tezuka however is silent on disclosing, "wherein at least one of said at least one derived network DNA component specification comprises a structured query language statement".

Beadles however, discloses, "wherein at least one of said at least one derived network DNA component specification comprises a structured query language statement" (Beadles, Col.7, lines 5-6, where Network policy store/Network DNA is implemented as SQL server database, further these policy's can be written in any other well known languages in the art e.g. pearl, Visual basic etc.).

Therefore, it would have been obvious to one ordinary skilled in the art at the time the invention was made to combine the teachings of Tezuka with the teachings of Beadles in order to provide device management policy to have control over network via developing a policy to associated network devices.

51. As to claims 8-9, Tezuka and Beadles disclose the invention substantially as in claim 5-7 above, including, wherein acquiring at least one raw network DNA component comprises acquiring a plurality of raw network DNA components in an order specified by a raw network DNA acquisition priority list (Beadles, NAT Directory schema, Col.23 and 24, Abstract, where multiple hierarchical services which are plurality of network DNA components and from hierarchy may priorities can be extracted e.g. reliability, security, confidence level etc. further it will be obvious make the hierarchy policy based).

52. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references, as applied to the claims above for the convenience of the applicant.

Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in its entirety as potentially teaching of all or part of the claimed invention, as well as the context.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tauqir Hussain whose telephone number is 571-270-1247. The examiner can normally be reached on 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571 272 3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

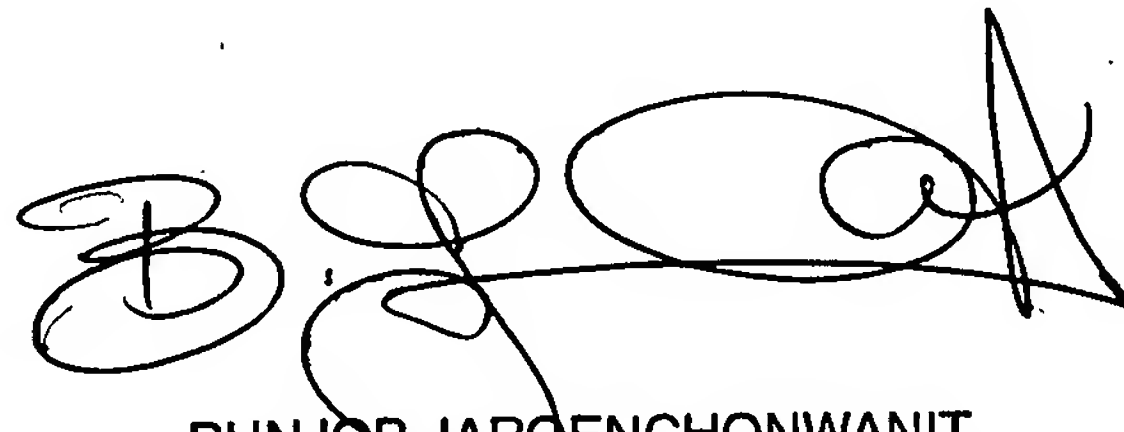
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Application/Control Number:
10/773,681
Art Unit: 2152

Page 24

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2/4/8